

## CLAIMS

1. A loudspeaker apparatus comprising:  
a loudspeaker array constructed by arranging a plurality of loudspeaker elements; and  
5        an audio signal processing unit that outputs inputted audio signals of a plurality of systems to a plurality of loudspeaker blocks, respectively, the plurality of loudspeaker blocks being formed by grouping part of the plurality of loudspeaker elements.
- 10   2. The loudspeaker apparatus according to claim 1, wherein the loudspeaker array is constructed such that the plurality of loudspeaker elements are arranged in a form of a horizontal row to form each of the loudspeaker blocks, and the loudspeaker blocks are stacked in a plurality of stages.
- 15   3. The loudspeaker apparatus according to claim 1, wherein two or more loudspeaker blocks are overlap with respect to a same loudspeaker element.
- 20   4. The loudspeaker apparatus according to claim 2 or 3, wherein the loudspeaker blocks are respectively constructed as separate loudspeaker units, and the loudspeaker array is constructed by stacking the loudspeaker units.
- 25   5. The loudspeaker apparatus according to claim 1, wherein

the loudspeaker blocks include a loudspeaker block for a high range and a loudspeaker block for a low range, and a width of the loudspeaker block for the high range signal is smaller than a width of the loudspeaker block for the low range signal.

5

6. The loudspeaker apparatus according to claim 1, wherein the loudspeaker array is constructed as loudspeaker rows each formed by arranging the plurality of loudspeaker elements in the form of a horizontal row are stacked in a plurality of stages.

10

7. The loudspeaker apparatus according to claim 6, wherein the loudspeaker block is constructed so that the output sound pressure of the respective loudspeaker rows becomes substantially uniform.

15

8. A loudspeaker apparatus comprising:

a loudspeaker array in which loudspeaker rows each formed by arranging a plurality of loudspeaker elements in a form of a horizontal row are stacked in a plurality of stages, and which is disposed such that the loudspeaker elements of the loudspeaker rows stacked vertically are arranged in a zigzag form; and

20

an audio signal processing unit in which an audio signal is divided into a plurality of frequency bands, a high range signal thereof is inputted to a loudspeaker block constructed

25

by a partial width of loudspeaker rows in two stages or more,

and a low range signal thereof is inputted to a loudspeaker block constructed by the entire width of a single-stage loudspeaker row.